

REMARKS

Claims 2, 5-7 and 10-12 and 17-23 are all the claims pending in the application.

I. The Allowable Subject Matter

The Examiner indicates that a combination of the subject matter of claims 1, 2, 3 and 8 would be allowable, stating that the art currently of record does not anticipate or render obvious the subject matter of these claims when taken in combination.

Claim 2 has been amended to include the subject matter of claims 1, 3 and 8. Additionally, claim 10 has been rewritten in independent form and to include the subject matter of claims 1, 2 and 3.

Applicants respectfully submit that the subject matter of independent claims 2 and 10 are allowable.

II. The Art Rejections

Claim 20 is rejected under 35 U.S.C. 102(e) as allegedly anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Blok et al.

Claims 16-19 and 21 are rejected under 35 U.S.C. 102(b) or (e) as allegedly anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly obvious over EP 070143 or J09151279.

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Claims 1-3, 5-8 and 10-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 070143 or J09151279 taken in view of Blok.

Applicants respectfully submit that the present invention is not anticipated by or obvious over Blok et al, EP 070143 or J09151279, either alone or in combination, and request that the Examiner reconsider and withdraw these rejections in view of the following remarks.

Although the Examiner has only suggested that the two component system (i.e., the combination of Na 1,6 hexamethylene-dithiosulfate dihydrate (HTS) and the Compound A) is allowable, Applicants respectfully submit that each of (HTS) and the Compound A can also independently exhibit the unexpected and excellent effects of achieving high durability in the run-flat condition and that the combined use of HTS and Compound A is not necessarily in order to achieve such unexpected effects.

In other words, the “addition of HTS to a rubber composition and use of the rubber composition for a reinforcing layer (and optionally for bead fillers)” solely achieves the unexpectedly excellent effect (i.e., significantly high durability in the run-flat condition) of the present invention, as compared with the cited art. Similarly, the “addition of the Compound A to a rubber composition and use of the rubber composition for a reinforcing layer (and optionally for bead fillers)” solely

achieves the unexpectedly excellent effect of the present invention, as compared with the cited art.

First, the unexpectedly excellent effect obtained by addition of HTS to a rubber composition and use of the rubber composition for a reinforcing layer and the like ("the HTS effect") is clear from the results of Examples 1-11 summarized in Table 1 of the present specification. Note that the HTS effect is obtained here, completely independent of addition of the Compound A.

Second, the unexpectedly excellent effect obtained by addition of the Compound A to a rubber composition and use of the rubber composition for a reinforcing layer and the like ("the Compound A effect") is clear when the result of Comparative Example 1 of Table 1 of the present specification (durability in the run flat condition of 100) is compared with the result of the newly added Example 25 of the attached Supplemental Declaration under 37 C.F.R. §1.132 of Mr. Tomoyasu Nishizaki (durability in the run flat condition of 131).

The unexpectedly improved results achieved by the use of Compound A may also been seen in a comparison of Example 15 (durability in the run flat condition of 154) with the Example 4 (durability in the run flat condition of 132). Furthermore, the unexpectedly improved results obtained when HTS and the Compound A are used in combination is obvious when the result of Example 1 is compared with Examples 12-16.

For the above reasons, it is respectfully submitted that the subject matter of claims 2, 5-7 and 10-12 and 17-23 is neither taught by nor made obvious from the disclosures of Blok et al, EP 070143 or J09151279, either alone or in combination, and it is requested that the rejections under 35 U.S.C. §§102 and 103 be reconsidered and withdrawn.

III. Conclusion

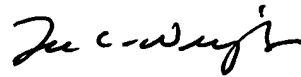
In view of the above, Applicants respectfully submit that their claimed invention is allowable and ask that the rejections under 35 U.S.C. §102 and the rejections under 35 U.S.C. §103 be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 1, 3, 8 and 13-16 are canceled.

The claims are amended as follows:

2 (twice amended). A rubber composition comprising:

a rubber component;

sodium 1,6-hexamethylenedithiosulfate dihydrate, in the amount of 1 to 10 parts by weight per 100 parts of the rubber component; and [a]

compound A having two or more ester groups in one molecule, in the amount of 0.5 to 20 parts by weight per 100 parts by weight of the rubber component,

wherein said rubber composition has, in a curve exhibiting a change in dynamic storage modulus during elevation of temperature, an intersection of an extrapolation line A of a portion in which the dynamic storage modulus shows an approximately linear change before a rapid decrease at temperatures higher than 100°C and an extrapolation line B of a portion in which the dynamic storage modulus rapidly decreases, at a temperature of 170°C or higher.

10 (three times amended). A rubber composition [according to claim 2,] comprising:

a rubber component;

sodium 1,6-hexamethylenedithiosulfate dihydrate, in the amount of 1 to 10 parts by weight per 100 parts of the rubber component; and

compound A having two or more ester groups in one molecule, in the amount of 0.5 to 20 parts by weight per 100 parts by weight of the rubber component,

wherein said rubber composition has, [having,] in a curve exhibiting a change in dynamic storage modulus during elevation of temperature, a difference $\Delta E'$ between the maximum value and the minimum value of the dynamic storage modulus at a temperature between 180 and 200°C of 2.5 MPa or less.

17 (three times amended). A pneumatic tire [according to claim 19,] comprising bead fillers and/or side wall portions reinforced with a rubber reinforcing layer, wherein the rubber reinforcing layer and/or bead fillers comprise a rubber composition comprising sodium 1,6-hexamethylenedithiosulfate dihydrate in the amount of 1 to 10 parts by weight per 100 parts of the rubber component, and wherein the rubber composition has, in a curve exhibiting a change in dynamic storage modulus during elevation of temperature, a difference $\Delta E'$ between the maximum value and the minimum value of the dynamic storage modulus at a temperature between 180 and 200 C of 2.5 MPa or less.

19 (twice amended). A pneumatic tire comprising bead fillers and/or side wall portions reinforced with a rubber reinforcing layer, wherein the rubber reinforcing layer and/or bead fillers comprise a rubber composition comprising

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sodium 1,6-hexamethylenedi thiosulfate dihydrate in the amount of 1 to 10 parts by weight per 100 parts of the rubber component, and wherein said rubber composition has, in a curve exhibiting a change in dynamic storage modulus during elevation of temperature, an intersection of an extrapolation line A of a portion in which the dynamic storage modulus shows an approximately linear change before a rapid decrease at temperatures higher than 100°C and an extrapolation line B of a portion in which the dynamic storage modulus rapidly decreases, at a temperature of 170°C or higher.

20 (Amended). A pneumatic tire comprising bead fillers and/or side wall portions reinforced with a rubber reinforcing layer, wherein the rubber reinforcing layer and/or bead fillers comprise a rubber composition comprising a compound A having two or more ester groups in one molecule in the amount of 0.5 to 20 parts by weight per 100 parts by weight of the rubber component, and wherein said rubber composition has, in a curve exhibiting a change in dynamic storage modulus during elevation of temperature, an intersection of an extrapolation line A of a portion in which the dynamic storage modulus shows an approximately linear change before a rapid decrease at temperatures higher than 100°C and an extrapolation line B of a portion in which the dynamic storage modulus rapidly decreases, at a temperature of 170°C or higher.

Claim 22 and 23 are added as new claims.